

**● PRINTER RUSH ●**  
**(PTO ASSISTANCE)**

Application : 09/226,216 Examiner : Schillinger GAU : 2813  
From : cwc Location : IDC FMF FDC Date : 4/11/05  
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| DOC CODE                                 | DOC DATE        | MISCELLANEOUS                                |
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| <input type="checkbox"/> 1449            |                 | <input type="checkbox"/> Continuing Data     |
| <input type="checkbox"/> IDS             |                 | <input type="checkbox"/> Foreign Priority    |
| <input type="checkbox"/> CLM             |                 | <input type="checkbox"/> Document Legibility |
| <input type="checkbox"/> IIFW            |                 | <input type="checkbox"/> Fees                |
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| <input type="checkbox"/> OATH            |                 |  |
| <input type="checkbox"/> 312             |                 |  |
| <input checked="" type="checkbox"/> SPEC | <u>01-07-99</u> |  |

**[RUSH] MESSAGE:**

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Thank you

**[XRUSH] RESPONSE:**

**INITIALS:**

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REV 10/04

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**SEMICONDUCTOR DEVICE  
AND  
METHOD OF MANUFACTURING THE SAME**

**BACKGROUND OF THE INVENTION**

**1. Field of the Invention**

The present invention relates to a semiconductor device using a semiconductor having crystallinity and a method of manufacturing the same.

**2. Description of the Related Art**

A thin film transistor (hereinafter referred to as a TFT) using a thin film semiconductor is known. This TFT is constructed in such a manner that a thin film semiconductor is formed on a substrate and this thin film semiconductor is used. Although this TFT is used for various kinds of integrated circuits, the TFT receives attention especially as a component of an electrooptical device, especially as a switching element provided in each pixel and a driver element formed in a peripheral circuit portion of an active matrix type liquid crystal display device.

As a thin film semiconductor used for the TFT, although it is easy to use an amorphous silicon film, there is a problem that its electrical characteristics are low. For the purpose of obtaining the improvement in the characteristics of the TFT, it is appropriate that a silicon thin film having crystallinity is used. A silicon film having crystallinity is referred to as polycrystalline silicon, polysilicon, microcrystalline silicon, or the like. In order to obtain the silicon film having the crystallinity, it is appropriate that an amorphous silicon film is first formed, and then, the film is crystallized by heating.

However, in crystallization by heating, it is necessary to carry out heating at a temperature of 600°C or higher and for 10 hours or more, so that there is a problem that it is difficult to use a glass substrate as a substrate. For example, Corning 7059 glass used for an active type liquid